

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 101581,495  
Source: JFWO  
Date Processed by STIC: 4/27/07

# ***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 04/27/2007

PATENT APPLICATION: US/10/581,495

TIME: 11:12:19

Input Set : A:\2007-04-21 1254-0315PUS1.ST25.TXT

Output Set: N:\CRF4\04272007\J581495.raw

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3 <110> APPLICANT: Hisatoshi SHIDA et al.
5 <120> TITLE OF INVENTION: HIGHLY SAFE SMALLPOX VACCINE VIRUS AND VACCINIA VIRUS VECTOR
7 <130> FILE REFERENCE: 1254-0315PUS1
9 <140> CURRENT APPLICATION NUMBER: US 10/581,495
10 <141> CURRENT FILING DATE: 2006-06-02
12 <160> NUMBER OF SEQ ID NOS: 13
14 <170> SOFTWARE: PatentIn Ver. 2.1
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 197
18 <212> TYPE: DNA
19 <213> ORGANISM: Vaccinia virus
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22 gtctgtgaaa cagataaatg gaaatacgaa aatccatgca agaaaatgtg cacagtttct 60
23 gattatgtct ctgaattata tgataagcca ttatacgaag tgaattccac catgacacta 120
24 agttgcaacg gcgaaacaaa atattttcgt tgcgaagaaa aaaatggaaa tacttcttgg 180
25 aatgatactg ttacgtg 197
28 <210> SEQ ID NO: 2
29 <211> LENGTH: 317
30 <212> TYPE: PRT
31 <213> ORGANISM: Vaccinia virus
33 <400> SEQUENCE: 2
34 Met Lys Thr Ile Ser Val Val Thr Leu Leu Cys Val Leu Pro Ala Val
35 1 5 10 15
37 Val Tyr Ser Thr Cys Thr Val Pro Thr Met Asn Asn Ala Lys Leu Thr
38 20 25 30
40 Ser Thr Glu Thr Ser Phe Asn Asp Lys Gln Lys Val Thr Phe Thr Cys
41 35 40 45
43 Asp Gln Gly Tyr His Ser Leu Asp Pro Asn Ala Val Cys Glu Thr Asp
44 50 55 60
46 Lys Trp Lys Tyr Glu Asn Pro Cys Lys Lys Met Cys Thr Val Ser Asp
47 65 70 75 80
49 Tyr Val Ser Glu Leu Tyr Asp Lys Pro Leu Tyr Glu Val Asn Ser Thr
50 85 90 95
52 Met Thr Leu Ser Cys Asn Gly Glu Thr Lys Tyr Phe Arg Cys Glu Glu
53 100 105 110
55 Lys Asn Gly Asn Thr Ser Trp Asn Asp Thr Val Thr Cys Pro Asn Ala
56 115 120 125
58 Glu Cys Gln Pro Leu Gln Leu Glu His Gly Ser Cys Gln Pro Val Lys
59 130 135 140
61 Glu Lys Tyr Ser Phe Gly Glu Tyr Met Thr Ile Asn Cys Asp Val Gly
62 145 150 155 160
64 Tyr Glu Val Ile Gly Ala Ser Tyr Ile Ser Cys Thr Ala Asn Ser Trp
65 165 170 175

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67 Asn Val Ile Pro Ser Cys Gln Gln Lys Cys Asp Met Pro Ser Leu Ser
68                      180                      185                      190
70 Asn Gly Leu Ile Ser Gly Ser Thr Phe Ser Ile Gly Gly Val Ile His
71                      195                      200                      205
73 Leu Ser Cys Lys Ser Gly Phe Thr Leu Thr Gly Ser Pro Ser Ser Thr
74                      210                      215                      220
76 Cys Ile Asp Gly Lys Trp Asn Pro Ile Leu Pro Thr Cys Val Arg Ser
77 225                      230                      235                      240
79 Asn Glu Lys Phe Asp Pro Val Asp Asp Gly Pro Asp Asp Glu Thr Asp
80                      245                      250                      255
82 Leu Ser Lys Leu Ser Lys Asp Val Val Gln Tyr Glu Gln Glu Ile Glu
83                      260                      265                      270
85 Ser Leu Glu Ala Thr Tyr His Ile Ile Ile Val Ala Leu Thr Ile Met
86                      275                      280                      285
88 Gly Val Ile Phe Leu Ile Ser Val Ile Val Leu Val Cys Ser Cys Asp
89                      290                      295                      300
91 Lys Asn Asn Asp Gln Tyr Lys Phe His Lys Leu Leu Pro
92 305                      310                      315

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95 &lt;210&gt; SEQ ID NO: 3

96 &lt;211&gt; LENGTH: 22

97 &lt;212&gt; TYPE: DNA

98 &lt;213&gt; ORGANISM: Artificial Sequence

100 &lt;220&gt; FEATURE:

101 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA

103 &lt;400&gt; SEQUENCE: 3

104 gatgctgttg tgctgtgttt gc 22

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108 &lt;211&gt; LENGTH: 25

109 &lt;212&gt; TYPE: DNA

110 &lt;213&gt; ORGANISM: Artificial Sequence

112 &lt;220&gt; FEATURE:

113 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA

115 &lt;400&gt; SEQUENCE: 4

116 gttaacactg tcgagcacta aaagg 25

119 &lt;210&gt; SEQ ID NO: 5

120 &lt;211&gt; LENGTH: 22

121 &lt;212&gt; TYPE: DNA

122 &lt;213&gt; ORGANISM: Artificial Sequence

124 &lt;220&gt; FEATURE:

125 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA

127 &lt;400&gt; SEQUENCE: 5

128 gatgctgttg tgctgtgttt gc 22

131 &lt;210&gt; SEQ ID NO: 6

132 &lt;211&gt; LENGTH: 21

133 &lt;212&gt; TYPE: DNA

134 &lt;213&gt; ORGANISM: Artificial Sequence

136 &lt;220&gt; FEATURE:

137 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA

139 &lt;400&gt; SEQUENCE: 6

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148 <220> FEATURE:
149 <223> OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA
151 <400> SEQUENCE: 7
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155 <210> SEQ ID NO: 8
156 <211> LENGTH: 22
157 <212> TYPE: DNA
158 <213> ORGANISM: Artificial Sequence
160 <220> FEATURE:
161 <223> OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA
163 <400> SEQUENCE: 8
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167 <210> SEQ ID NO: 9
168 <211> LENGTH: 21
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
172 <220> FEATURE:
173 <223> OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA
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176 tcggaagcag tcgcaaacaa c 21
179 <210> SEQ ID NO: 10
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181 <212> TYPE: DNA
182 <213> ORGANISM: Artificial Sequence
184 <220> FEATURE:
185 <223> OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA
187 <400> SEQUENCE: 10
188 ataccatcgt cgtaaaggc gc 22
191 <210> SEQ ID NO: 11
192 <211> LENGTH: 24
193 <212> TYPE: DNA
194 <213> ORGANISM: Artificial Sequence
196 <220> FEATURE:
197 <223> OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA
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203 <210> SEQ ID NO: 12
204 <211> LENGTH: 24
205 <212> TYPE: DNA
206 <213> ORGANISM: Artificial Sequence
208 <220> FEATURE:
209 <223> OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA
211 <400> SEQUENCE: 12
212 tcaatgataa gttgcttcta acga 24

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215 &lt;210&gt; SEQ ID NO: 13

216 &lt;211&gt; LENGTH: 20

217 &lt;212&gt; TYPE: DNA

218 &lt;213&gt; ORGANISM: Artificial Sequence

220 &lt;220&gt; FEATURE:

221 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:Synthetic DNA

223 &lt;400&gt; SEQUENCE: 13

224 gatccgaaga atgatatccc

20

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